

### Remarks

Applicant respectfully requests reconsideration. Claims 1-82 were previously pending in this application. By this amendment, Applicant has amended claims 12, 14, 15, 29, 31, 74 and 76. Claims 1-11, 13, 16-28, 30, 32-73, and 79-82 have been canceled. As a result, claims 12, 14, 15, 29, 31, and 74-78 are pending for examination. No new matter has been added.

### Claim Objections

The Examiner objected to claims 13, 14, 29, 30, and 74-78 as containing non-elected inventions. Applicant has amended the claims to reflect the election of an invention for prosecution.

Accordingly, Applicant respectfully requests that the Examiner withdraw the objection to the claims.

### Rejections Under 35 U.S.C. §112, First Paragraph

The Examiner rejected claims 12, 14 and 15 as not supported by an adequate written description. Applicant respectfully requests reconsideration of the rejection in view of the amendments to the claims and the arguments below. In particular, Applicant has added the limitations of claim 13 to claim 12. On this basis alone, Applicant believes that the claims as amended are adequately described.

According to the Examiner, the claims are drawn to a pharmaceutical composition comprising a genus of agents, and that in order to adequately describe such a genus, the specification must provide sufficient identifying characteristics of the genus. The Examiner alleges that only functional characteristics of the genus are presented, i.e., that the composition enriches complexes of HLA molecules and a human CT antigen polypeptide.

Applicant respectfully disagrees; the specification has described the genus in sufficient detail such that one of ordinary skill in the art will recognize that Applicant invented what is now claimed. In particular, the claims as now amended recite a plurality of polypeptides, one of which is encoded by SEQ ID NO:18. Moreover, the specification clearly and in detail describes the properties of CT antigens, including a listing of a number of the CT antigens known at the time of filing of the application along with literature references for these antigens (see p. 12, line 24 – p. 14, line 15). Based on this description and the amendment to the claims, Applicant

asserts that the claimed invention is more than adequately described to satisfy the requirements of the law for written description as set forth in Vas-Cath v. Mahurkar.

Accordingly, Applicant respectfully requests that the Examiner withdraw the rejection of the claims under 35 U.S.C. 112, first paragraph, as lacking an adequate written description.

#### Rejections Under 35 U.S.C. §102

The Examiner rejected claims 12-15, 29-31 and 74-77 under 35 U.S.C. §102(b) as anticipated by US patent 5,935,578. Applicant respectfully requests that the rejection be withdrawn.

Applicant has amended the claims to reflect that the compositions contain plurality of cancer-testis (CT) antigen polypeptides or fragments of such polypeptides. In each of the claims, one of the plurality of polypeptides or fragments is (or is a part of) SEQ ID NO:19 or encoded by SEQ ID NO:18.

US patent 5,935,578 teaches that the PH30 polypeptide (also known as ADAM2 or fertilin  $\beta$ ) is a sperm protein that can be used as part of a contraceptive vaccine. US 5,935,578 does not teach that this protein is associated in cancer in any way. Furthermore, US 5,935,578 does not teach the production of combinations of cancer-testis antigen polypeptides, or fragments thereof, or fusion proteins containing these polypeptides.

Therefore, US patent 5,935,578 does not teach all of the elements of the invention as now claimed. Accordingly, Applicant respectfully requests that the rejection under 35 U.S.C. 102(b) be withdrawn.

#### Rejections Under 35 U.S.C. §103

The Examiner rejected claims 74, 77 and 78 as unpatentable over US patent 5,935,578 in view of US patent 5,961,979. Applicant respectfully requests reconsideration of the rejection.

First, as noted above, US patent 5,935,578 does not provide the elements of the invention as amended. US 5,935,578 does not teach or suggest combinations of a plurality of peptides that are fragments of cancer-testis antigen polypeptides.

Second, US patent 5,961,979 does not supply the elements missing from US 5,935,578. While US 5,961,979 teaches adjuvants, it does not teach or suggest the combination of elements present in the claimed invention.

Therefore, the combination of US 5,935,578 and US 5,961,979 does not teach all of the elements of the claimed invention. Accordingly, Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. 103 as based on these two patents.

### **CONCLUSION**

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,  
*Old, et al., Applicant*

By:   
John R. Van Amsterdam, Reg. No. 40,212  
Wolf, Greenfield & Sacks, P.C.  
600 Atlantic Avenue  
Boston, Massachusetts 02210  
Telephone: (617) 646-8000

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